

Date: Tue, 12 Jul 94 04:30:15 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #219
To: Ham-Ant

Ham-Ant Digest Tue, 12 Jul 94 Volume 94 : Issue 219

Today's Topics:

 Fox-Hunt Antenna Tricks
 mfj 1796
 Mouting 2 Hamstix on the bumper?
 NEC Input Format
 On glass antennas on Saturns
 RDF kit order lost
 Wanted: Popular Electronics article from May 94 issue
 What's your favorite cheap RDF 2m antenna (2 msgs)
 Which is the better tower: guyed or crankup?

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 11 Jul 94 13:05:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: Fox-Hunt Antenna Tricks
To: ham-ant@ucsd.edu

****Jim, N1QNK requested information on CHEAP RDF antennas for 2
meters*****

I built a dipole pair with PVC and wire as shown in the ARRL
handbook, but didn't have a lot of success with it on my first
foxhunt. (I think I didn't have the phasing cables right).
Check out the design, though - it's cheap and not too difficult
to build.

What actually worked for me (except for close range - closing in for the "kill") was the following:

- 1) Cut a piece of aluminum flashing about 1" X 10".
- 2) Wrap it around your "rubber duck" in such a way that only a thin (1/16 " or so) slot is uncovered - trim as necessary.
- 3) Hold the radio close to your body with the slot facing away from you.
- 4) Turn around until the "fox's" signal is at a minimum.
- 5) The direction to the fox is directly behind you.
- 6) With a compass, plot the direction from your location on a topographical map and move to a new location. Triangulate.

I located our "fox" within about a 200-ft. circle using this technique and came in second in our competition. It's hokey and cheap and probably doesn't always work. But, it's very impressive when you can pull it off. :)}
}

73 de KD1DJ, A1

Date: Mon, 11 Jul 1994 08:46:26 CDT
From: ihnp4.ucsd.edu!dog.ee.lbl.gov!agate!howland.reston.ans.net!math.ohio-state.edu!news.acns.nwu.edu!uicvm.uic.edu!u12566@network.ucsd.edu
Subject: mfj 1796
To: ham-ant@ucsd.edu

Is this one "vaporware" too? Anyone care to share their experiences?
It seems like a nice package - vertical polarization for local 10m, 2 meters and hf with one feedline, 15 and 40 for working on the cw....
I send for info, and they sent assembly manual but no specs.

Comments?

N9UZG

Date: 11 Jul 94 16:01:35 GMT
From: ihnp4.ucsd.edu!swrinde!howland.reston.ans.net!vixen.cso.uiuc.edu!aries!hawley@network.ucsd.edu
Subject: Mouting 2 Hamstix on the bumper?
To: ham-ant@ucsd.edu

white@csusys.ctstateu.edu writes:

>Can anyone foresee problems with mounting both a 40M Hamstik and a 20M hamstik
>on the rear bumper of the car?
>Thx
>Harry
Touching each other or several feet apart? Seems ok apart.

Chuck Hawley, KE9UW in Urbana, Illinois
hawley@aries.scs.uiuc.edu
School of Chemical Sciences, Electronic Services
University of Illinois, Urbana-Champaign

Date: Mon, 11 Jul 1994 19:59:21 GMT
From: swrinde!howland.reston.ans.net!europa.eng.gtefsd.com!uhog.mit.edu!
news.kei.com!yeshua.marcam.com!charnel.ecst.csuchico.edu!csusac.ecs.csus.edu!
csus.edu!netcom.com!rander@@ihnp4.ucsd.edu
Subject: NEC Input Format
To: ham-ant@ucsd.edu

dts@world.std.com (Daniel T Senie) writes:

... stuff deleted ...

>The files also referenced the availability of documentation from NTIA,
>but gave no contact information. Either way, it would be helpful to
>be able to try some simple examples before deciding to order any
>printed matter.

... stuff deleted ...

>Dan Senie N1JEB

>--

>-----
>Daniel Senie Internet: dts@world.std.com
>Daniel Senie Consulting n1jeb@world.std.com
>508-779-0439 Compuserve: 74176,1347

The following information provides the document order numbers and
the address from which to order the official government documents for NEC2 .

I shall post this same file on the NEC Archives on ftp.netcom.com
in /pub/rander/NEC.

Numerical Electromagnetic Code (NEC) - Method of Moments

Volume 1 NOSC TD 116 Order # ADA 075289
Volume 2 NOSC TD 116 Order # ADA 075460

In 1992, Vol 1 was \$50 and Volume 2 was \$26. I would not be surprised if it has gone up. Rush fee was \$15 each, if you want overnight. you don't need to rush. Normal parcel post arrives within the same week.

Note that the two volumes have the same NOSC numbers, but different ADA document numbers.

Order Address:

U. S. Department of Commerce
National Technical Information Service
5285 Port Royal Road
Springfield VA 22161

Phone: (703)487-4650

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	(408) 956-0492 fax
	raymond.anderson@Sun.Com
	rander@netcom.com

Date: 11 Jul 94 12:54:06 PDT

From: ihnp4.ucsd.edu!news.cerf.net!cam1!henderson@network.ucsd.edu
Subject: On glass antennas on Saturns
To: ham-ant@ucsd.edu

Hello,

Has anyone tried the Antenna Specialists 2meter on glass antennas on Saturn cars? If so, I'd like to talk to you.

--

Javier Henderson (JH21)
henderson@mln.com

Date: Mon, 11 Jul 1994 16:22:51 GMT
From: ihnp4.ucsd.edu!usc!elroy.jpl.nasa.gov!lll-winken.llnl.gov!fnnews.fnal.gov!gw1!nntpa!not-for-mail@network.ucsd.edu
Subject: RDF kit order lost
To: ham-ant@ucsd.edu

At the Dayton Hamfest there was a fellow selling RDF kits based on the May 93 article in QST on the "Handi-Finder."

I bought a kit and it works fine.

I then followed up with an order for 25 kits for our local ham radio club and RACES group.

Well 6 weeks later and one followup note later, still no kits.

The name of the fellow is "Stephan A. Douglas"

His mailing address is a PO box (same as on the order sheet) and he has an unlisted number.

Has any one ordered any kits from him and received them?

The only money we are out is the cost of a money order since the kits are to come COD, but if I knew he wasn't going to deliver I would do something different.

My next step is to complain to the Post office.

I am also trying to buy the PC boards and make my own kits for the club.

FAR Circuits sells boards and I have had good luck with them

in the past.

Joe Wilkes

Date: 11 Jul 1994 18:42:00 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!howland.reston.ans.net!vixen.cso.uiuc.edu!
prairienet.org!folson@network.ucsd.edu
Subject: Wanted: Popular Electronics article from May 94 issue
To: ham-ant@ucsd.edu

I am looking for a an article in the May issue of 1994 about
an NBS crystal radio article. If anyone could send me a copy of
the article I'd appreciate it. I will refund your stamp!! Thanks
Fran (WB9ULS). I am unable to get it from the local library or
book stores.

--
Fran Olson (WB9ULS) email:folson@prairienet.org
P.O. Box 1122
Champaign, IL. 61824-1122
U.S.A.

Date: 11 Jul 1994 09:39:07 -0700
From: netcomsv!dodge!not-for-mail@decwrl.dec.com
Subject: What's your favorite cheap RDF 2m antenna
To: ham-ant@ucsd.edu

In article <2vm37u\$231@agate.berkeley.edu>,
Anonymous User <nobody@soda.berkeley.edu> wrote:
>I have a couple of fox hunts coming up in the near future, but I really
>cannot afford to invest much more in ham radio for awhile :-(So, the
>header says it all. What inexpensive 2m RDF antennas and/or techniques
>have you successfully utilized.
>
>These are beginners' hunts, where the fox will be stationary, with not
>nasty tricks like switching polarization. The average terrain is fairly
>hilly, from about 300 to 800 or more feet above sea level.

First of all, the most important bearing could be the first one from
the starting point. If the signal is too weak for you to receive on
an HT then see if there are some others that don't mind sharing their
initial readings with you. Most of them won't mind, since they usually
compare their readings with others anyway.

For the rest of the hunt you can probably get my by just using your rubber ducky. Some have had great success by placing their HT inside a shielded tube. By inserting the HT into the tube at different depths it acts as an attenuator.

With your HT and rubber ducky you need to use the body fade technique. Basically you hold the HT up very close to your chest and then watch the S-meter as you turn in a circle. What your looking for is the deepest null that you can find, which is caused by your body blocking the signal, hence the name body fade.

If you are too close, or the signal is too strong, then the body fade won't work without some help. This is where the shielded tube comes in handy. Otherwise, here are two other tricks to attenuate the signal so you can find the null: 1) tune slightly off frequency; 2) completely remove the antenna, if no signal is received then set the antenna onto the HT lightly trying not to let the center conductor touch, if you succeed it will capacitively couple and dramatically weaken in incoming signal. I've successfully found the fox whenever I've used this method and I know another hunter that soley uses this method all the time (and always finds the fox).

Another great technicue I always use to tell if I'm getting close to the transmitter is to listen on the 3rd harmonic. Normally at the starting point I'll hook my 440 HT to a magmount, tune it to the 3rd harmonic, and turn the volume up all the way. When it gets enough signal to break squelch then I know that I'm within 100 yards of the signal. I then use a 440 6 element beam (it's less then 3 feet long and easy to handle) and my 440 HT to close in on the fox.

If you want to make a 2m beam for fox hunts, there was a great design here just a few days ago which used a Radio Shack FM beam as the base. One element removed, connecting wires between elements removed, and the remaining elements trimmed to 2m frequency. When I bought my RS FM beam the price was \$16.xx + tax. I did one other mod besides the ones listed, I swapped the element with the feedline screws with the element that is used for 2m driven element. Just drilled the pop rivets out and use a long screw to remount the element. Also, the mod instructions said to totally remove one of the element. If you need the design, I can repost it. I plan on posting my comments in a couple of days after I get a chance to try it out.

73 & happy hunting,
km6wt

Date: Sun, 10 Jul 1994 19:35:28 GMT
From: ihnp4.ucsd.edu!swrinde!gatech!news-feed-1.peachnet.edu!news.duke.edu!
godot.cc.duq.edu!nntp.club.cc.cmu.edu!cantaloupe.srv.cs.cmu.edu!dolphin!
ed@network.ucsd.edu
Subject: What's your favorite cheap RDF 2m antenna
To: ham-ant@ucsd.edu

What inexpensive 2m RDF antennas and/or techniques have you successfully utilized.

I have seen (not personally used) - a df system that used 2 switched antennas (audio freq oscillator - square waves - 2 phases and diode switching for 2 antennas with equal length feed lines)

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|      |  
|      | < short dipoles equal lengths, (but not resonant!)  
===== [ ] =====  
|    [ ]   |  
|       |   |  
|       |   |  
        |  
        < coax from osc/diode switcher to receiver.
```

This thing supposedly works by phase sense difference between the 2 antennas. It works with the fm phase discriminator, giving no tone when signal is equidistant from both antennas (broadside), max tone if it is inline. It is bi-directional but its claimed to be accurate to a few degrees. I have also seen this design commercially for about \$75+.

Method 2, only heard this from 1 person not sure if its accurate...
Put a bnc in the bottom of a large coffee type can, coax to ht, put rubber duck on bnc inside of coffee can with top open.

Supposed to be a 2m "flashlight" with no polarization sensitivity.
I have a huge 10lb apple sauce can I intend to try this with.... Why not, can't hurt. Worst it could do is provide an omni pattern with gain (fat chance).

Yagi antennas may not be good in close proximity unless you have an attenuator. Even at a distance I have found a lot of multipath & reflections playing with Modified radio shack fm > 2m beam.

Ed N3SD0

Date: 11 Jul 1994 14:11:13 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!math.ohio-state.edu!
magnus.acs.ohio-state.edu!csn!col.hp.com!fc.hp.com!jayk@network.ucsd.edu
Subject: Which is the better tower: guyed or crankup?
To: ham-ant@ucsd.edu

hamilton on BIX (hamilton@BIX.com) wrote:

- : 1. There are no guy wires (obviously) and all that entails (e.g.,
: anchoring them, risk that someone will guillotine himself on
: the wire, etc.)
- : 2. You can lower the antenna to work on it at a safer height or if
: a storm is expected.
- : 3. It may be easier to circumvent local zoning ordinances regarding
: height restrictions (the argument being that it's only
: "temporarily" ever higher than the ordinance allows).

: The disadvantages look to be these:

- : 1. They're more expensive for a given height.
- : 2. They require a LOT more concrete at the base, which could be
: more of a problem if you want to remove it later.
- : 3. You have to crank it up to use it, meaning going out turn the
: crank or spend more money for an electric model. And if you
: forget and leave it up in a storm, you're asking for more
: trouble since it presumably is not rated for that.
- : 4. You can't (I presume) use something like Hardline with it
: because Hardline is, well, hard and isn't going to take to
: flexing into loops as the tower goes up and down.

I pretty much agree with the above, but a couple of things you didn't mention:
How much antenna do you plan to have? If you just plan something like a
Cushcraft A3 and a 2 meter vertical most any tower will be OK. The bigger
the antenna the better the guyed tower looks, unless you spend a lot of
\$\$\$ for a BIG crankup.

Also how high do you plan to go? If you only plan to go 40 or 45 feet
you could use regular Rohn tower section with a house bracket or maybe
freestanding. Much cheaper than a crankup.

If you are in the middle of a contest or chasing a rare DX station its
very depressing if the wind comes up and you need to crank the tower
down.

73, Jay K0GU

jayk@fc.hp.com

Date: 11 Jul 1994 21:10:01 GMT
From: ihnp4.ucsd.edu!usc!nic-nac.CSU.net!news.Cerritos.edu!news.Arizona.EDU!nemo!
hlester@network.ucsd.edu
To: ham-ant@ucsd.edu

References <CsL4AI.Cnv@srigenprp.sr.hp.com>, <2vjva7\$55k@werewolf.norand.com>,
<2vpq3j\$djp@chnews.intel.com>ester
Subject : Re: need 80 meter dipole help

In article <2vpq3j\$djp@chnews.intel.com> CecilMoore@Delphi.com writes:

>

>Hi Guy, remember the original poster wanted an all-band antenna out of his
>installation. All-band dipoles do not work well with the ends hanging
>vertically. They don't even work well as an inverted-V.

Cecil!!! Whaddya mean they don't work as well as an inverted-V?? Mine works
very well! Maybe it doesn't work quite as well as a horizontal at the
same height as the inverted-V's apex, but satisfactory, just the same.

Howard

End of Ham-Ant Digest V94 #219
